**Before the**
**FEDERAL COMMUNICATIONS COMMISSION**
**Washington, D.C. 20554**

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| In the Matter of | ) | |
| | ) | |
| Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies | ) | ET Docket No. 92-9 |
| | ) | RM-7981 |
| | ) | RM-8004 |

**REPLY**

In the above-captioned Further Notice of Proposed Rule Making, 7 FCC Rcd 6100 (1992) ("FNPRM"), the Commission proposes rechannelizing the 3.7 - 4.2 GHz band ("4 GHz band") to accommodate 2 GHz fixed microwave users displaced to clear spectrum for emerging technologies. This 4 GHz band rechannelization is based upon a proposal by Alcatel Network Systems, Inc. ("ANS").[1]

In response to satellite industry criticism of the Commission's 4 GHz band rechannelization plan, ANS, in its January 26, 1993, Reply Comments on the FNPRM, submitted a revised plan to eliminate satellite industry concerns ("Modified Plan"). On March 10, 1993, various members of the satellite industry (the "Satellite Interests") filed comments regarding ANS' Modified Plan. To ensure that the record regarding the 4 GHz band rechannelization is complete, pursuant to Section 1.415(d) of the Commission's Rules, ANS hereby seeks leave to file this Reply to the Satellite Interests' comments.

[1]Petition for Rule Making, filed May 22, 1992 (RM-8004) ("Petition").

**ANS' MODIFIED PLAN GENERALLY ELIMINATES THE BASES FOR SATELLITE INDUSTRY OPPOSITION**

Satellite users opposed the Commission's proposed 4 GHz band rechannelization plan in the FNPRM. They claim that this plan would create harmful interference to downlinked video programming by eliminating the 10 MHz guard band between C-band satellite center frequencies and terrestrial frequencies.[2] In response to these satellite industry concerns, ANS developed the Modified Plan for the 4 GHz band to permit its increased use by low and medium capacity former 2 GHz fixed microwave users without adversely affecting C-band satellite operations. Under the Modified Plan, the frequency "offset" that exists between terrestrial and satellite users in the 4 GHz band would be retained, permitting the continued use of existing terrestrial interference filters. Thus,

a difficult situation.[4] For example, GTE states that the Modified Plan "can be accommodated in a manner which is not truly disruptive" to C-band operations and that it "resolves the more significant barriers for sharing that existed" in the FNPRM.[5] Similarly, HCG concludes that "[a]ssuming the Commission determines that it is necessary to open the 4 GHz band to displaced microwave users, [it] does not object to Alcatel's new rechannelization plan and believes that this new proposal is preferable to the plan the Commission has proposed."[6]

Nevertheless, the Satellite Interests still have reservations about use of the 4 GHz band as a long term refuge for 2 GHz fixed microwave users. To protect against harmful interference to digital video transmission, certain of the Satellite Interests oppose any 4 GHz band rechannelization, including the Modified Plan, that would result in greater use of this band by displaced 2 GHz users.[7]

While ANS appreciates these concerns, it nonetheless successfully has addressed all the specific technical issues regarding the 4 GHz band rechannelization raised in the record of this proceeding by the Satellite Interests and other parties. These parties have yet to detail the exact technical bases for claiming that digital

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[4]GTE at 2; GE Americom at 1-2; NPR at 1; HCG at 2.

[5]GTE at 2.

[6]HCG at 2.

[7]HCG at 2; SBCA at 1-2; HBO at 2; GE Americom at 2-3; NPR at 2.

transmission on the C-band would be adversely affected by the 4 GHz plan in the FNPRM or in the Modified Plan. Nor is any specific evidence submitted as to the scope of the impact on digital service or the time frame when such problems might emerge.

When compared with the certainty of massive 2 GHz fixed microwave user displacement, such undocumented claims by the Satellite Interests must not prevent prompt adoption of the 4 GHz band Modified Plan. In the interest of cooperation, however, ANS can represent that the TIA TR 14.11 Committee, which is responsible for general radio interference criteria, is willing to work with satellite users to establish industry standards addressing their concerns regarding the compatibility of digital C-band operations and the Modified Plan.

**TO ENSURE ADEQUATE SPECTRUM IS AVAILABLE FOR DISPLACED 2 GHZ FIXED MICROWAVE USERS, THE COMMISSION MUST ADOPT THE MODIFIED PLAN FOR THE 4 GHZ BAND**

Use of the 4 GHz band as a replacement band for 2 GHz users is problematic at best. Nevertheless, given the probable unavailability of adequate spectrum in the bands above 3 GHz for these displaced users, it is incumbent upon the Commission to reallocate every possible band, including the 4 GHz band, even though some hardship to incumbents might result.

In response to ANS' Modified Plan, which eliminates the problems involving the 10 MHz guard band, there no longer is a consensus of satellite industry opposition. Under these circumstances, the Commission must adopt ANS' Modified Plan and ensure that the 4 GHz band is available for displaced 2 GHz users,

provided that harmful interference to satellite users is minimized.

## SATELLITE USERS SUPPORT REALLOCATION OF THE 3.6-3.7 GHZ BAND TO ENSURE ADEQUATE SPECTRUM FOR 2 GHZ USERS

To provide needed spectrum for displaced 2 GHz fixed microwave users and to minimize the need to rechannelize the 4 GHz band, ANS, in its Petition, proposed reallocation of the 3.6-3.7 GHz band to fixed point-to-point use for common carrier and private op-fixed users on a co-primary basis.[8] The 3.6-3.7 GHz band is allocated on a shared basis for government and for non-government users, and ANS proposes continuation of this sharing. Unfortunately, the FCC, despite strong public support, disagreed and did not include this proposal in the FNPRM.[9]

With the uncertainties over the availability of the 4 GHz band and the need for adequate spectrum to accommodate the narrowband needs of 2 GHz users, reallocation of the 3.6-3.7 GHz band is necessary. Such a reallocation would minimize, or perhaps eliminate, the need for any new microwave users, including displaced 2 GHz users, to operate on the 4 GHz band.

Reallocation of the 3.6-3.7 GHz band would avoid the satellite coordination requirements in the 4 GHz band for low and medium capacity fixed microwave users. Moreover, this band has propagation characteristics comparable to the 2 GHz band. Consequently, the 3.6-3.7 GHz band would provide sufficient spectrum for

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[8]Petition, Attachment 1 at Section 3.6. The channelization plan in the Petition for the 3.6-3.7 GHz band provides RF bandwidths from 400 KHz to 10 MHz, which accommodates the needs of low and medium capacity users.

[9]FNPRM, 7 FCC Rcd at 6103.

displaced 2 GHz narrowband users so that the proposed 4 GHz

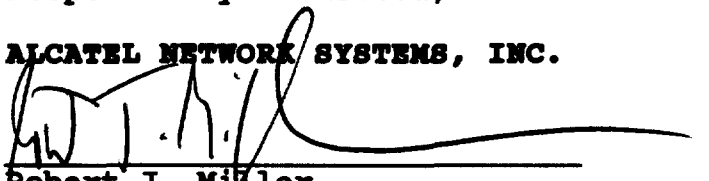
terrestrial service. It appears that sufficient capacity is available in the government portion of the 3.6-3.7 GHz band.[12]

When the FCC decided not to propose reallocation of the 3.6-3.7 GHz band, it merely stated that frequency coordination and electromagnetic constraints with existing government use limits private sector access, but it did not even attempt to document this situation.[13] In view of anticipated spectrum shortage for fixed services in the bands above 3 GHz, this approach is inappropriate. Rather than maintaining barriers to exploiting the efficiencies of

actively should pursue this option. Promoting private sector access to government bands will encourage better overall spectrum management and will optimize the availability of much needed spectrum.[14]

Respectfully submitted,

ALCATEL NETWORK SYSTEMS, INC.



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[14]Under the Emerging Telecommunications and Technologies Act of 1993 (H.R. 707), which recently was passed by the House of Representatives, such spectrum sharing is to be encouraged. A similar provision for sharing is included in the Senate counterpart, S. 335.

## CERTIFICATE OF SERVICE

I, Mary Grayson, do hereby certify that copies of the foregoing REPLY will be served by telecopier on the following parties on the 2nd day of April, 1993:

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